

**STATE OF CALIFORNIA**  
**CALIFORNIA ENERGY COMMISSION**

**Business Meeting Minutes**

**of**

**March 17, 2004**

## Business Meeting Minutes of March 17, 2004

The meeting was called to order by Chairman Keese at 10:05 a.m.

The Pledge of Allegiance was led by Commissioner Boyd.

William J. Keese	Present
Arthur Rosenfeld	Absent
James D. Boyd	Present
John L. Geesman	Present
B. B. Blevins	Present

1. CONSENT CALENDAR. (Items on the Consent Calendar will be taken up and voted on as a group. A Commissioner may request that an item be discussed and moved to later on the agenda).
  - a. AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY. Possible approval of Contract 500-03-029 for \$15,000 for a co-sponsorship agreement with the ACEEE for the 2004 Summer Study on Energy Efficiency in Buildings.
  - b. CALIFORNIA AIR RESOURCES BOARD (ARB). Possible approval of Contract 500-03-027 for \$25,000 for a co-sponsorship agreement for the Haagen-Smit Symposium on Climate Change. (PIER funded)
  - c. ELK HILLS POWER PROJECT (99-AFC-1C). Possible approval of a petition to reduce PM10 emission rates.
  - d. YOLANDA S. WALTHER-MEADE. Possible approval of Contract 600-01-090 Amendment 3, for a no-cost time extension to March 31, 2004. This action is required because of leadership changes in Mexican State governments over the last eight months, which delayed planned educational seminars, energy audits and planning meetings.
  - e. DESERT RESEARCH INSTITUTE. Possible approval of Work Authorization MR-027, under Contract 500-02-004 to enhance work already done by Scripps by installing and maintaining additional modern wireless meteorological and hydrological monitoring sites at other key locations and/or additional sensors that sample additional monitoring variables, not to exceed \$399,918. (PIER funded)
  - f. UNIVERSITY OF CALIFORNIA, DAVIS. Possible approval of Work Authorization MR-028, under Contract 500-02-004 to administer the formation of the California Solar Energy Collaboration, not to exceed \$400,000. (PIER funded)

*Item 1.d. was removed from the Agenda. Commissioner Geesman moved and Commissioner Boyd seconded the approval of the remaining items on the Consent Calendar. The vote was unanimous. (4-0)*

2. LOS ESTEROS 2 POWER PLANT PROJECT. Possible approval of the Executive Director's data adequacy recommendation for the Los Esteros 2 Power Plant Project Application for Certification (Docket No. 2-AFC-03).

*Commissioner Geesman moved and Commissioner Boyd seconded approval of the Executive Director's recommendation that the AFC for the Los Esteros 2 Power Plant Project be found data adequate. The vote was unanimous. (4-0)*

3. LOS ESTEROS 2 POWER PLANT PROJECT COMMITTEE ASSIGNMENT. Possible approval of a Committee Assignment for Los Esteros 2 Power Plant Project Application for Certification. (Docket No. 2-AFC-03)

*Commissioner Boyd moved and Commissioner Geesman seconded the approval of Chairman Keese as the Presiding Member and Commissioner Blevins as the Second Member for the Los Esteros 2 Power Plant Committee. The vote was unanimous. (4-0)*

4. COUNTY OF NAPA. Possible approval of \$800,000 loan to the county of Napa to install energy efficient motors, energy efficient lighting, two 75-kilowatt cogeneration units, a plate and frame heat exchanger and variable frequency drives on the building supply, exhaust and cooling tower fans. The project is estimated to save \$85,000 per year and has a payback of 9.4 years. (ECAA Bond funded)

*Commissioner Geesman moved and Commissioner Blevins seconded approval of a loan to the county of Napa. The vote was unanimous. (4-0)*

5. CITY OF FRESNO. Possible approval of a \$2,661,000 loan to the city of Fresno to install two photovoltaic systems totaling 665-kilowatt, variable speed drives on HVAC fans, and energy efficiency lighting and boiler, and to recommend HVAC controls at the City Hall and Maintenance & Services Building. This project is estimated to save about \$282,000 annually and has a simple payback of 9.4 years. (\$2,072,545-ECAA Bond funded and \$588,455 ECAA funded)

*Commissioner Blevins moved and Commissioner Boyd seconded approval of a loan to the city of Fresno. The vote was unanimous. (4-0)*

6. 2003 ANNUAL REPORT. Possible adoption of the 2003 Annual Report for the Public Interest Energy Research Program.

*Commissioner Geesman moved and Commissioner Boyd seconded the adoption of the 2003 Annual Report for PIER. The vote was unanimous. (4-0)*

7. WESTERN GOVERNOR'S ASSOCIATION. Possible approval of Contract R150-03-002 to provide the first increment of funding (\$15,000) from WGA to the Commission for planning and preparation for transuranic waste shipments in California. The Department of Energy (DOE) has approved a nine-month annual planning figure of \$187,500 for Federal Year 2004 to be provided in funding increments. As these funding increments are received from DOE, WGA will forward them to the Commission throughout their FY 2004 by contract modification until the total \$187,500 is received. As these funding increments are received from WGA, they will appear on the Consent Calendar. (DOE funded)

*Commissioner Boyd moved and Commissioner Blevins seconded approval of Contract R150-03-002. The vote was unanimous. (4-0)*

8. GOVERNOR'S OFFICE OF EMERGENCY SERVICES. Possible approval of Contract 150-03-003 to provide the first increment of funding (\$12,000), up to a total of \$143,000 to continue emergency response preparation for federal transuranic waste shipments in California. As additional funds are received from the U.S. Department of Energy and the Western Governors' Association (WGA) to the Commission, further funding increments will be provided throughout the FY 2004 and are being approved contingent upon receipt of funds. (DOE and WGA funded)

*Commissioner Boyd moved and Commissioner Blevins seconded approval of Contract 150-03-003. The vote was unanimous. (4-0)*

9. CALIFORNIA HIGHWAY PATROL (CHP), COMMERCIAL VEHICLE SECTION. Possible approval of Contract 150-03-004 for \$25,000 to provide funding to the CHP to reimburse expenses for inspecting and/or escorting shipments of transuranic nuclear waste in California. This contract is being approved contingent upon receipt of funds. (DOE and WGA funded)

*Commissioner Boyd moved and Commissioner Blevins seconded approval of Contract 150-03-004. The vote was unanimous. (4-0)*

10. BUILDING INDUSTRY INSTITUTE. Possible approval of Contract 400-03-006 for \$158,000 to provide information and training on the current 2001 and upcoming 2005 California Building Energy Efficiency Standards to large production builders and local building departments. (DOE funded)

*Commissioner Blevins moved and Commissioner Geesman seconded approval of Contract 400-03-006. The vote was unanimous. (4-0)*

11. ALTERNATIVE ENERGY SYSTEMS CONSULTING. Possible approval of Contract 500-00-016 Amendment 1, to add \$345,000 and expand research begun under Contract 500-00-016. This expansion will demonstrate using intelligent software agents for control and scheduling of one or more distributed energy resources (DER) in conjunction with building energy management systems. This will give building managers an integrated solution to choose using load reduction strategies, on site generation or a combination of the two to respond to price signals and alerts. (PIER funded)

*Commissioner Geesman moved and Commissioner Boyd seconded approval of Contract 500-00-016 Amendment 1. The vote was unanimous. (4-0)*

12. URENCO POWER TECHNOLOGIES LIMITED. Possible approval of Contract 500-03-033 for \$891,000 to demonstrate the benefits of using a 400-kilowatt flywheel system for electric energy storage to reduce peak demand, capture wasted energy and lower overall electricity costs for transportation systems such as light rail systems in California. (PIER funded)

*Commissioner Geesman moved and Commissioner Boyd seconded approval of Contract 500-03-033. The vote was unanimous. (4-0)*

13. REGENTS OF UNIVERSITY OF CALIFORNIA, DAVIS. Possible approval of Contract 500-01-044 Amendment 1, to augment the contract by \$1,000,000 and extend the time by two and one half years to June 30, 2007. This contract manages a research program to improve our understanding of the effects of pulsed or ramping flows from hydropower facilities on aquatic species and to improve our ability to reduce negative effects of such flows while minimizing unnecessary curtailment of hydropower generation. (PIER funded)

*Commissioner Geesman moved and Commissioner Boyd seconded approval of Contract 500-01-044 Amendment 1. The vote was unanimous. (4-0)*

14. REGENTS OF THE UNIVERSITY OF CALIFORNIA, SANTA CRUZ. Possible approval of Contract 500-01-032 Amendment 1, to augment the research program by \$1,999,949. The contract is to conduct research identified in several PIER-EA roadmaps to reduce avian interactions with utility structures, improve reliability and remove barriers to expanding wind industry needed to meet the RPS. The program has successfully partnered with wind industry, utilities and government agencies, is consistent with objectives identified in the 2001 and 2003 EPR and is supported by the Siting Division and Fish and Wildlife Service.

*Commissioner Geesman moved and Commissioner Boyd seconded approval of Contract 500-01-032 Amendment 1. The vote was unanimous. (4-0)*

15. UNIVERSITY OF CALIFORNIA, OFFICE OF THE PRESIDENT/CIEE. Possible approval of Contract 500-01-043 Amendment 1, to add \$2,500,000 and fund additional work under the tasks, Demand Response (DR) Enabling Technology Development project, and Control and Communications Integration (C<sup>2</sup>I). (PIER funded)

*Commissioner Geesman moved and Commissioner Blevins seconded approval of Contract 500-01-043 Amendment 1. The vote was unanimous. (4-0)*

16. UNIVERSITY OF CALIFORNIA, SAN DIEGO, SCRIPPS INSTITUTION. Possible approval of Work Authorization MR-025, under Contract 500-02-004 to continue to their research program designed to improve our scientific understanding of the potential changes of climate in California, not to exceed \$3,526,732. Several new avenues of research will be pursued, such as the study of the effect of land use changes on climate.

*Commissioner Boyd moved and Commissioner Blevins seconded approval of Work Authorization MR-025 under Contract 500-02-004. The vote was unanimous. (4-0)*

17. UNIVERSITY OF CALIFORNIA, RIVERSIDE. Possible approval of Work Authorization MR-026, under Contract 500-02-004 to administer the air quality research program, not to exceed \$3,512,279. The total cost for this initial project to fund two years of program administration and one year research will not exceed \$3,512,279. (PIER funded)

*Commissioner Boyd moved and Commissioner Blevins seconded approval of work Authorization MR-026 under Contract 500-02-004. The vote was unanimous. (4-0)*

18. DISTRIBUTED UTILITY ASSOCIATES. Possible approval of Contract 500-03-034 for \$2,976,437 to test the feasibility and value of co-location and integration of multiple, diverse distributed energy resources (DER) into the low voltage electricity distribution system. (PIER funded)

*Commissioner Geesman moved and Commissioner Blevins seconded approval of Contract 500-03-034. The vote was unanimous. (4-0)*

19. TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY (CSU). Possible approval of Contract 500-98-014 Amendment 3, for \$3,000,000 to continue the Energy Innovations Small Grant Program. (PIER funded)

*Commissioner Geesman moved and Commissioner Blevins seconded approval of Contract 500-98-014 Amendment 3. The vote was unanimous. (4-0)*

20. TRUSTEES OF THE CALIFORNIA STATE UNIVERSITY (CSU). Possible approval of ten grant applications totaling \$749,083 to the Energy Innovations Small Grant Program in response to Solicitation Cycle 03-02. (PIER funded)
- a. 03-02-53, Rutgers University, New Membranes Based on Ionic Liquids for High Temperature PEM Fuel Cells, \$75,000
  - b. 03-02-47, Amonix, Innovative Injection-Molded Plastic Package For High-Concentration PV Cells, \$75,000
  - c. 03-02-31, University of Illinois, A Zero Current Ripple, Energy Efficient and Reliable Low Cost Residential and Commercial Zero Emission Direct Power-Conversion System, \$74,999
  - d. 03-02-50, SunPower Corporation, Flat-Plate Micro-Dish Photovoltaic Concentrator Module, \$74,985
  - e. 03-02-03, Davis Energy Group, Inc., Covell Village - A Model for Sustainable Communities, \$74,965
  - f. 03-02-49, Taylor Energy, LLC, Biomass-to-Syngas, Novel Low-Cost counter-Current Process, \$74,908
  - g. 03-02-46, Markron Technologies, Innovative Wheel Concept to Increase Gas Turbine Efficiency, \$75,000
  - h. 03-02-36, Rensselaer Polytechnic Institute, The DaySwitch, \$75,000
  - i. 03-02-24, Choson Research Corp., A New Physical Water Treatment Technology for Energy-Efficient Water-Cooled Air Conditioning Systems, \$74,290
  - j. 03-02-44, Intertec Advanced Materials, Inc., High Efficiency Lanthanide Doped Ceria-Zirconia Layered Hybrid Electrode for SOFC Generators, \$74,936

*Commissioner Geesman moved and Commissioner Blevins seconded approval of the ten grant applications from the Energy Innovations Small Grant Program. The vote was unanimous. (4-0)*

21. POWERLIGHT CORPORATION. Possible approval of Contract 500-03-035 for \$1,214,389 to research, develop and demonstrate an advanced tracking system for photovoltaics. (PIER funded)

*Commissioner Geesman moved and Commissioner Boyd seconded approval of Contract 500-03-035. The vote was unanimous. (4-0)*

22. CALIFORNIA'S ELECTRICITY SYSTEM. Possible adoption of the findings on the Cost of Integrating Renewables into California's electricity system. The Renewables Committee held a workshop on this issue on February 20, 2004 to receive public comments.

*Commissioner Geesman moved and Commissioner Boyd seconded adoption of the findings on the Cost of Integrating Renewables into California's electricity system. The vote was unanimous. (4-0)*

23. CLEAN ENERGY SYSTEMS, INC. Possible approval of Contract 500-01-013 Amendment 3, for \$2,000,000 to demonstrate the durability and reliability of a 5-megawatt, zero-emission, gas-fired power plant using CES technology. Under the existing contract, CES has designed and build control systems for a 10-megawatt gas generator, with the intent of testing it generating 500-kilowatts of electricity at Mirant's Contra Costa power plant in Antioch, California. This is no longer possible because Mirant is in bankruptcy. This amendment will enable the system to be tested driving a 5-megawatt steam turbo-generator at CES' recently-acquired Kimberlina power plant near Bakersfield, California. The test at 5-megawatts reduces technical risk, saves at least one year before commercialization and has captured the interest of electricity generators for commercial implementation. (PIER funded)

*Commissioner Geesman moved and Commissioner Boyd seconded approval of Contract 500-01-013 Amendment 2 (identified as "Amendment 3" in the Agenda is a typographical error). The vote was unanimous. (4-0)*

24. Minutes

*Commissioner Geesman moved and Commissioner Blevins seconded approval of minutes from the March 3, 2004 business meeting. The vote was unanimous. (4-0)*

25. Commission Committee and Oversight

*Commissioner Geesman discussed his presentation to the City of Carson on petroleum infrastructure siting.*

26. Chief Counsel's Report

*Acting Chief Counsel Jonathan Blees discussed recent developments in litigation on energy efficiency standards for air conditioners.. He also requested that the Commission hold a closed session to discuss potential litigation.*

27. Executive Director's Report

*Executive Director Bob Therkelsen stated that with the approval of Items 4 and 5, all of the ECAA bond funds have been allocated, and that the Commission will work on a new bond issue for the fall of 2004. He commended Daryl Mills and the ECAA bond staff for their excellent work. He also noted that all of the PIER funds available for this year have been allocated.*

28. Public Adviser's Report

*On behalf of the Public Adviser, who had to be at another meeting, Executive Director Bob Therkelsen noted the Workshop on Aging Power plants to be held next week.*



29. Public Comment

*No comments were received.*

The meeting was adjourned at 11:25 a.m.

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BETTY A. McCANN  
Secretary to the Commission